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MALLORY SEMICONDUCTOR COMPANY

a division of P. R. MALLORY & CO. INC.

DuQuoin, Illinois 62832

Attn: General Sales Manager

☐ Please have salesman call.

☐ Please send sample trigger diodes.

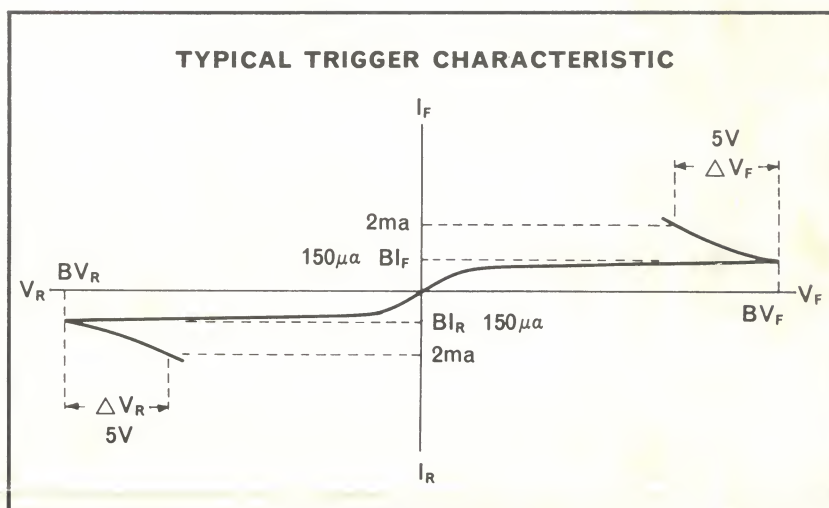
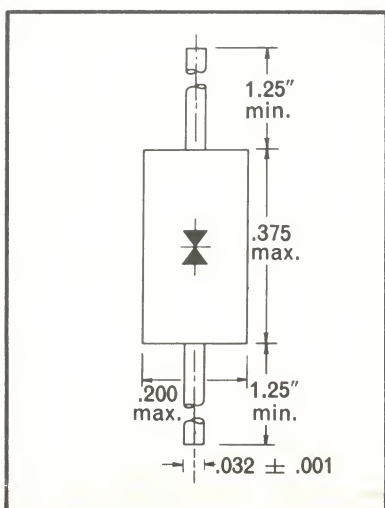
☐ I (do) (do not) wish to receive literature from the Mallory Semiconductor Company.

NAME _____

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MALLORY

STD DUAL TRIGGER DIODE



HIGH TEMPERATURE OPERATION

COLD CASE DESIGN

1 WATT POWER RATING

RELIABLE TRIGGER SOURCE

SYMMETRICAL BREAKOVER

The trigger diode is a symmetrical three-layer avalanche diode used in activating silicon controlled rectifier and bi-switches. Its unique characteristic is a symmetrical switching mode which fires whenever the breakover voltage is exceeded in either direction, thus triggering 2 SCR's with one diode. The average power dissipation at 50°C is 1 watt with a peak current capability of 1 amp for 20 microseconds duration.

Mallory Type ST diffused junction silicon triggers are highly reliable components for use in commercial, industrial and home instrument and appliance applications. The insulated case permits high-density packaging of components.

RATINGS AND SPECIFICATIONS

RATINGS @ 50°C

Average Power Dissipation	1 watt
Power derating above 50°C	10 mw/°C
Pulse current, 20 microseconds duration, 0.5% duty cycle	1.0 amp

SPECIFICATION @ 25°C

Breakover voltage BV_F, BV_R	Available from 24v to 120v $\pm 10\%$ tol.
Breakover current max.	150µa
Breakback voltage, 2 ma	5 volts min.
Breakover voltage symmetry ΔV	within 5%
Breakover voltage T.C.	0.02%/°C Typ.

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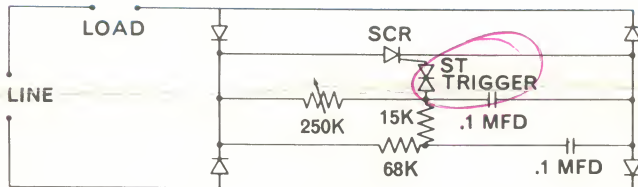
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424 S. Madison, DuQuoin, Illinois 62832; Telephone: 618-542-2154

STANDARD RATINGS 1 WATT 10% TOL.

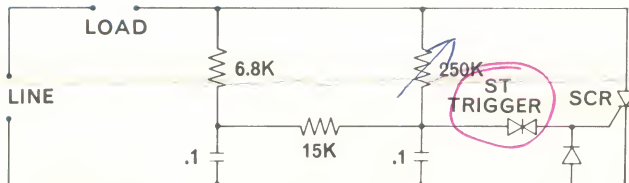
MALLORY NO.	BREAKOVER V.	MALLORY NO.	BREAKOVER V.	MALLORY NO.	BREAKOVER V.
STD24A	24	STD43A	43	STD75A	75
STD27A	27	STD47A	47	STD82A	82
STD30A	30	STD51A	51	STD91A	91
STD33A	33	STD56A	56	STD100A	100
STD36A	36	STD62A	62	STD110A	110
STD39A	39	STD68A	68	STD120A	120

For 5% Tolerance use Suffix 'B'

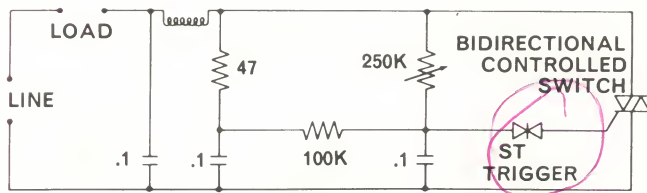
TYPICAL TRIGGER DIODE APPLICATIONS



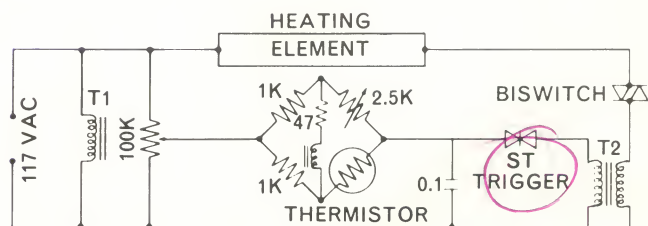
1. SCR FULL WAVE CONTROLLER



2. SCR HALF WAVE CONTROLLER

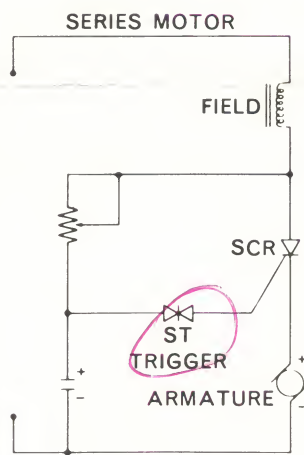
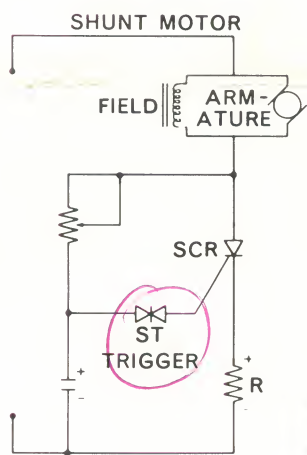


3. LIGHT DIMMER CIRCUIT

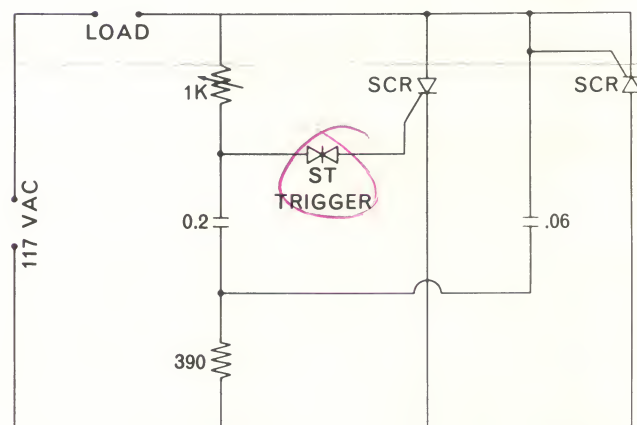


4. TEMPERATURE CONTROLLER T1—12.6 VOLT SEC.

T2—PRIM 2 TURNS AWG 24
SEC 60 TURNS AWG 18



5. FEEDBACK CIRCUITS FOR CONSTANT SPEED



6. SCR FULL WAVE CONTROL
CAPACITOR COUPLED



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